



# Impact of Healthcare Communication on Student Competency: An observational cohort mixed-method study

Hannah Smith, DDS.\*, Paloma Reyes-Nguyen, DMD, MS, Chaitanya Puranik, BDS, MS, MDentSci, PhD



Children's Hospital Colorado

\*Presenting author,

Children's Hospital Colorado, Department of Pediatric Dentistry

## BACKGROUND

- Problem-based learning (PBL) enhances student confidence, learning experiences, and critical thinking. The Triple Jump Assessment (TJA) is a PBL technique that evaluates student assessments.
- Dental education lacks a framework for assessing healthcare communication.
- Clinical simulation is widely used in healthcare education
- Students at CUSDM undergo TJA as part of pediatric dentistry assessment on a simulated patient.
- Students' communication skills, performance, self-assessment, and simulated parent (SP), and faculty assessment were retrospectively evaluated for this study.

## METHODS

- After IRB approval, data from 120 students at University of Colorado School of Dental Medicine were analyzed
- Data for this study was collected, paired, and anonymized by the program director, and sent to the PI
- Only student scores on this activity were included. Course grades and demographics were not included for the purposes of this research. Participants were from 2 cohorts- pre-doctoral students, and Advanced Standing International students.

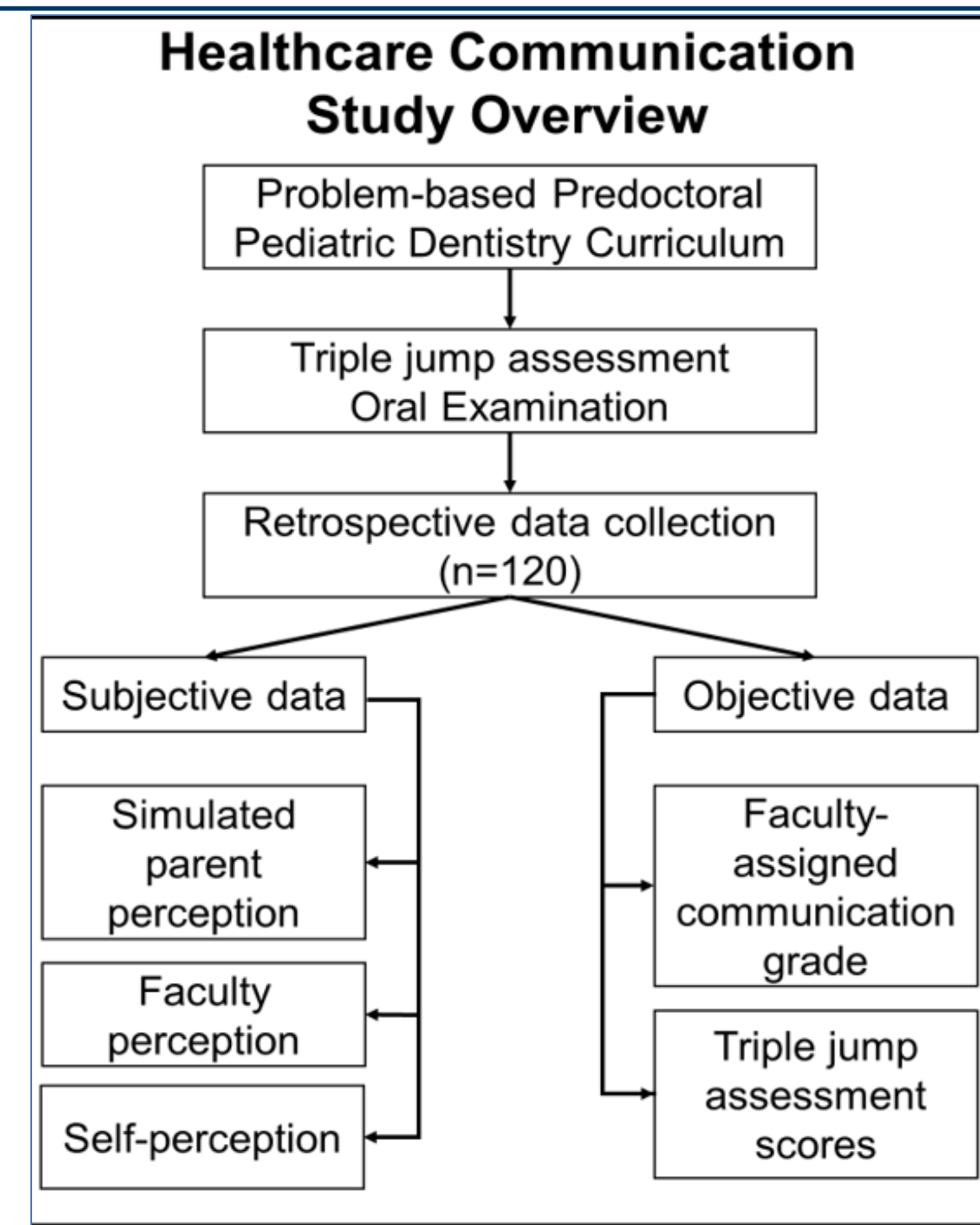


Figure 1: Overview of a retrospective study to evaluate impact of communication of student performance and perceived competence

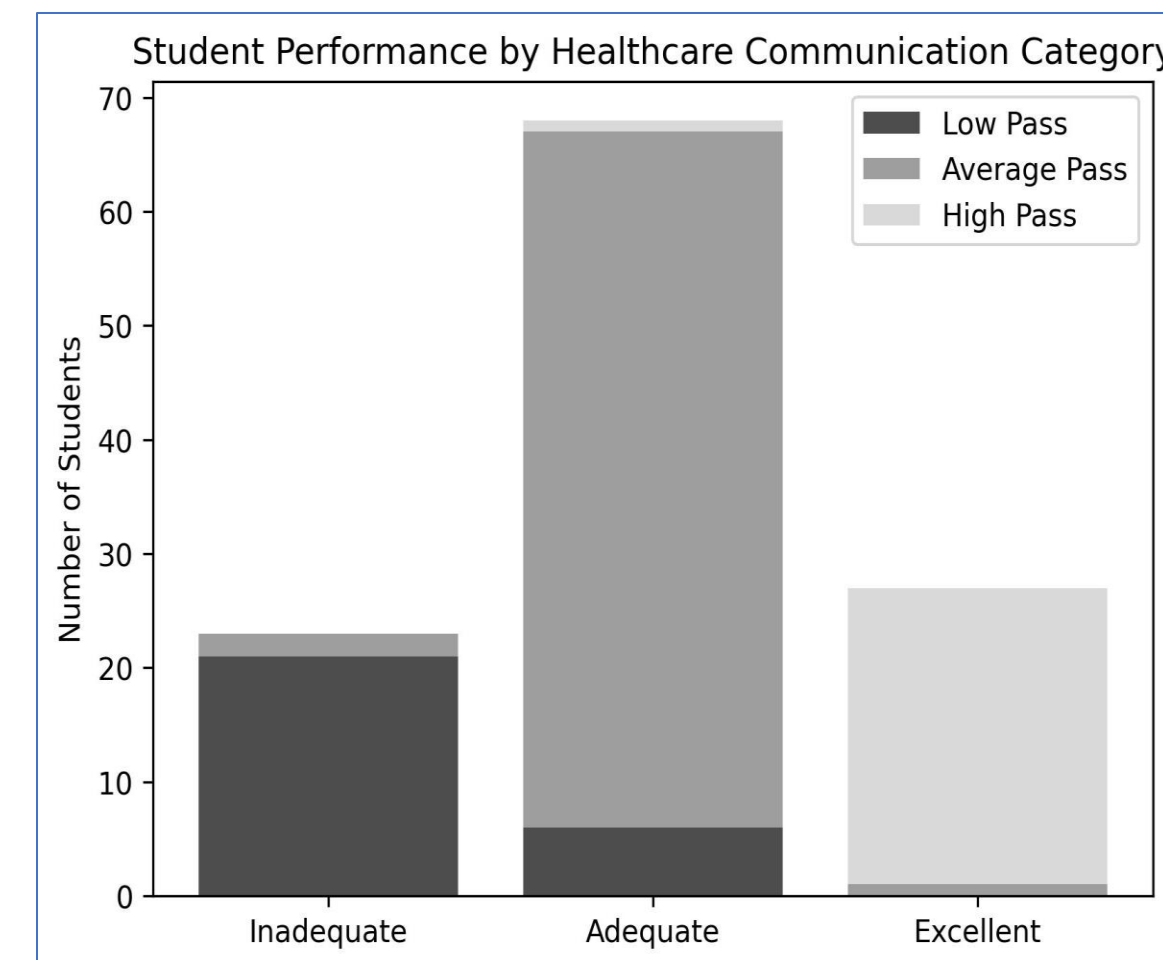
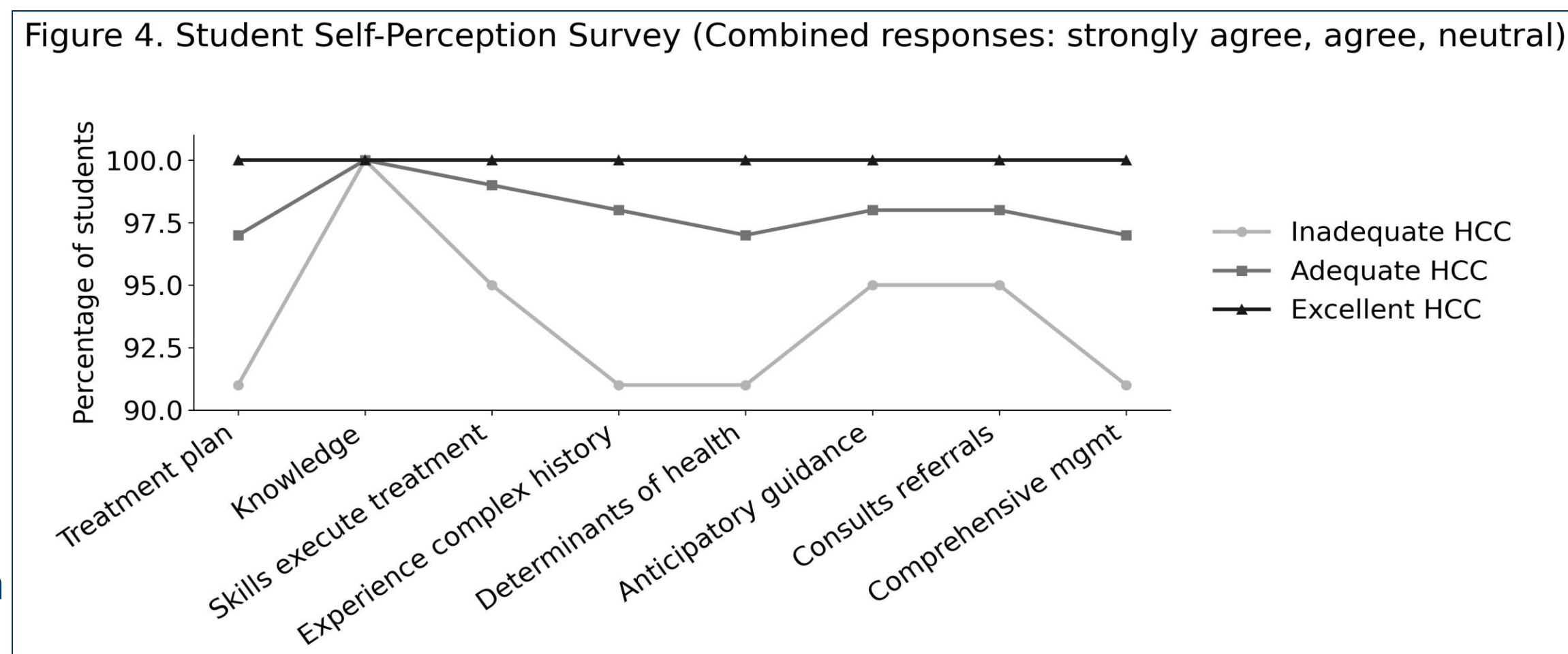
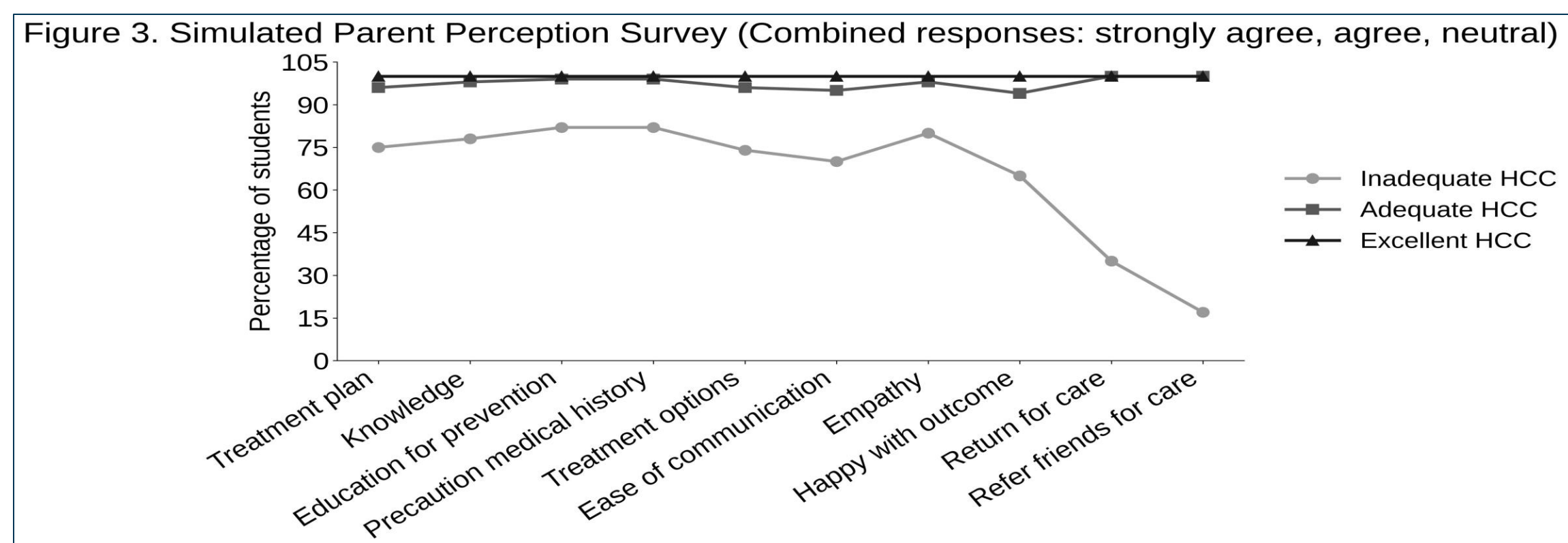
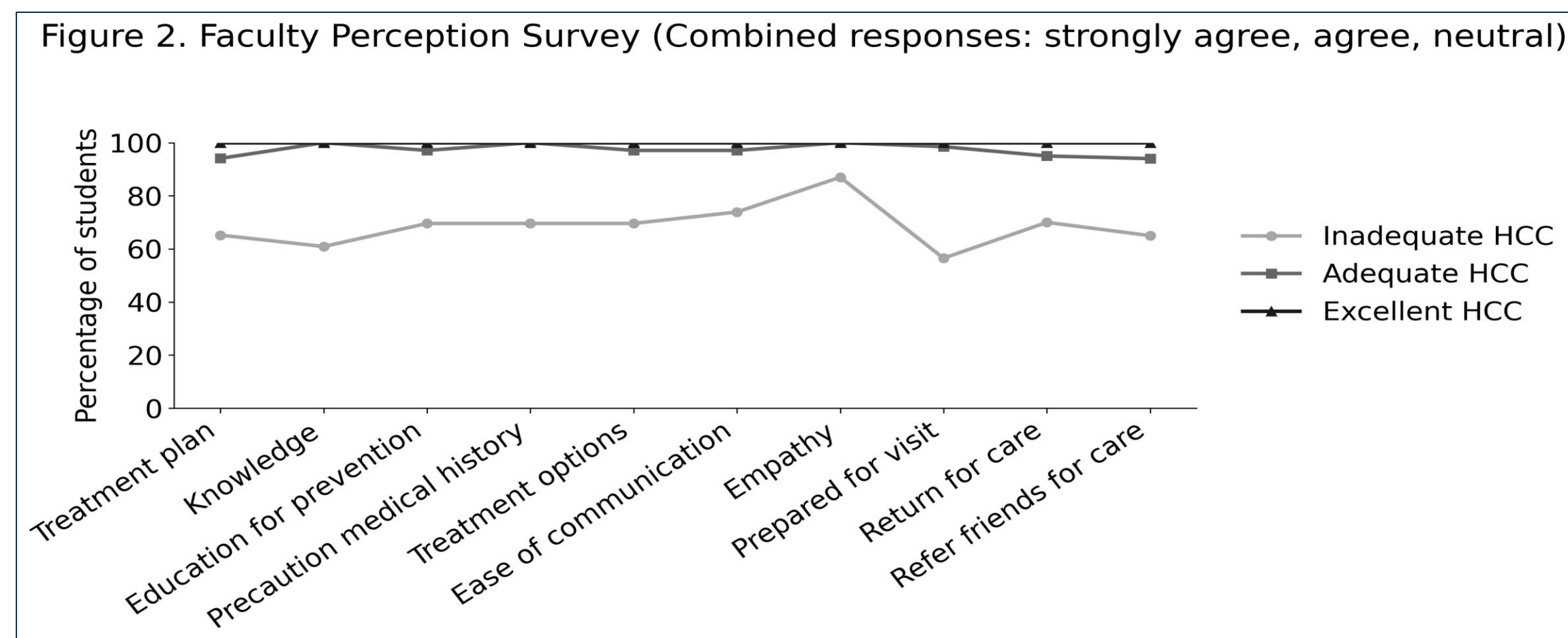


Figure 2: Students performance based on communication skills.

## RESULTS



## CONCLUSIONS

- HCC category was very strongly associated with pass level ( $P < 0.0001$ , Cohen  $w = 0.78$ ).
- Low pass was concentrated in the Inadequate HCC group (21/23, 91.3%), while High pass was concentrated in the
- The odds of Low pass were 155.8 times higher for students rated Inadequate than for all other students combined (95% CI 29.3-826.9;  $P < 0.0001$ ).
- Compared with Inadequate HCC, Excellent HCC had markedly higher odds of High pass (OR 830.3, 95% CI 32.2-21382.3).
- Faculty and parent mean Likert scores rose stepwise from Inadequate to Adequate to Excellent; student self-ratings rose more modestly.

## IMPLICATIONS

- Communication is one of the most important predictors of student success in a simulated parent exercise.
- Healthcare communication training and practice is necessary for performance and perceived competence.

## REFERENCES

- References available on request.